THE MARINE RECORD.

DEVOTED TO COMMERCE, ENGINEERING AND SCIENCE.

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AROUND THE LAKES.

CLEVELAND.

The tug Helene arrived from Fairport on Tuesday night.

The tow barge Nellie Mason has been sold at East Saginaw for $24,000 cash.

The Standard Oil Company's lighter will go into Smith's drydock to-day to have a leak stopped.

The firm name of the Globe Iron Works has been changed to the Globe Shipbuilding Company.

The case of Humphrey Sisson and others vs. the tug Fannie Tuthill is still under advisement.

Palmer & Benham bought the schooner Queen City from Messrs. Kelderhouse and Maytham, for $25,000.

The tug A. F. Bush went out Tuesday and brought in her fish nets, which have been under ice all winter.

E. C. Recor, of Port Huron, has sold the tug James Reid for $9,000. It will be taken to Lake Superior in the spring.

It is said that the Columbia and Comrade have been chartered for six trips, ore Escanaba to Cleveland, at $1.10.

The Northern Transportation Company sold the steambarge Tecumseh to McArthur Bros., of East Saginaw. Consideration, $35,000.

Palmer & Benham have sold the schooner C. P. Minch for J. C. Gilchrist to Captain Elphicke of Chicago. Consideration $12,000.

Captain Dahlke has taken a new departure and is well under way with an A1 boot and shoe store at 297 Pearl street. He intends sailing next season, however.

Two of A. Bradley's boats, the Carr and Wagstaff, broke loose during the gale on Tuesday night in the old river bed, tearing out the piles to which they were tied.

The Sophia Minch, which has been in Globe drydock just two months, being overhauled and put in condition after her experience ashore off the railroad dock last fall, will vacate the drydock this evening. The J. S. Fay will take her place in the dock to receive a new shaft, sternpipe and be refastened and calked. She will also have her engine compounded by the Globe Iron Works.

The following call has been issued by President Russell, of the National Marine Engineers' Beneficial Association, headquarters at Pittsburg:

To the Members of the Marine Engineers' Beneficial Association:

Brothers: Among the sufferers from the high water in the Ohio are many marine engineers and members of the Marine Engineers' Beneficial Association; and while we may not be able to discover them individually, your aid can be received if forwarded to the managers of the relief fund. Therefore it is my request and desire that the various associations, either collectively or individually, contribute as liberally as possible towards relieving their distressed brethren residing in the flooded districts.

[Signed] A. E. RUSSELL, President.

In connection with the paragraph published last week in regard to the tying up of the tug American Eagle, we learn that Captain Dahlke has a cross claim against both R. Torrent and the estate of Mr. Waller of Chicago. Captain Dahlke says he has been making efforts to settle this matter for the last three months. It appears from Captain Dahlke's statement that a contract was made with R. Torrent to put a new wheel in the tug at a certain time but on account of the loss of the measure taken for the wheel a delay was caused to the tug of twenty-four hours where by the tug's tow was lost to it. entailing a damage of $290. Mr. Dahlke also claims a rebate of $50 overcharge on repairs to the engine. In regard to the claim of the estate of W. Roller, Captain Dahlke claims that he left with him in 1882 for repairs a pony used for pumping and which was still in Mr. Roller's possession at the time of his death, and which Captain Dahlke has been unable to obtain, Robert Torrent refusing to deliver it to him. Captain Dahlke holds these items as an offset against the claims of Robert Torrent and the estate of W. Roller and has till the 3d of March to file a counter claim.

In the United Satates Circuit Court, a suit brought by Eldridge G. Merick, Henry Esselstyn, and Melzar F. Merick, of Detroit, known as Merick, Esselstyn & Co., against J. H. Dalliba, of this city, was placed on trial last Friday. Merick, Esselstyn & Co., agreed to carry iron ore for the Dalliba Iron Mining Company during the season of 1882, in their schooner the Monticello, for $1.90 per ton. The contract arranged that the Detroit firm should be compensated for any delay occasioned to the schooner outside of that caused by strikes, holidays, etc. On July 1, the contract was broken. The complainants allege that Mr. Dalliba refused to pay $406.17 due them under the clause of the contract just named, and they would not consent to receive any more ore from them. They claim also that the schooner was unable to secure another contract, because the season had advanced too far. The bill of complaint prays the court to grant Merrick. Esselstyn & Co., $3,000 damage therefor, with a judgment for $406.17 with interest from July 1, 1882.

A three-cornered case in which the tug Fanny Tuthill, and the schooner Exile and Wawanosh were interested, was decided by Judge Baxter this week. The Wawanosh was lying at Nott's spar dock, near the foot of St. Clair street with her stern extending over a scow and her bow lapping the stern of the schooner Charles Crawford. While the Wawanosh was in this position the tug Fanny Tuthill came down the river at high rate of speed, it is claimed, with the schooner Exile in tow, light, and in passing the bend of the river swung the Exile around so far as to catch her mizzenmast in the forerigging of the Wawanosh. As a result the Exile's mizzenmast was torn out and damaged. On the part of the Wawanosh it is claimed that the Fanny Tuthill was going at too high rate of speed around the bend in the river and was the cause of the damage sustained, while on the part of the Exile it is claimed that the bowsprit of the Wawanosh extended too far over the channel for safe passage in rounding the turn. To make the passage still more difficult another tug was coming up the river at the same time. Judge Welker decided that both parties were to blame, holding that the Fanny Tuthill was going too fast and that the Wawanosh had extended her bowsprit too far over the river. He awarded damages in the sum of $482.45, a moiety against each. An appeal was taken against this rendering and the case taken to the Circuit court. A decision was reached by Judge Baxter on the 19th affirming the decision of the district court.

LONDON.

Captain Isaac May, a lake steambarge owner, died here on the 18th of cancer of the lip, with which he has been afflicted two years. He is well known in all the lake ports, and was formerly of Cleveland.

DETROIT.

Special to the Marine Record.

DETROIT, February 19.

Captain P. H. Maguire, lightkeeper at Marquette, Lake Superior, has been in this city for a few days on business matters, and returns homeward to-day. Prior to holding the position he now occupies he was for eight years stationed at Thunder Bay, Lake Huron, and has been located at Marquette for two years. There is nothing of special note from that quarter. But two vessels and one small steamer are laid up at that port and they are in care of Captain George Freeman, an old time skipper on that lake, but latterly the proprietor of a livery, which does not necessitate his turning out nights to shorten sail.

Detroit river, at this writing, is open and as balmy as a June morning, free to navigation throughout its length.

As a commencement to navigation the schooner Mineral State will to-morrow leave this port with a cargo of 24,000 bushels of corn, for Walkerville, Ont., which will be the first voyage of the season from here. As the distance is not very far she will tow direct through to her destination.

There is some speculation going on as to the opening of navigation in consequence of the long spell of open weather, but beyond a question the ides of March will make up for lost time and it is too early to figure in the matter, yet very good passtime when there is nothing else to talk about.

Buying or selling in this locality has become a thing of the past and brokers seem in a mood of despondency and gloom. The only notable transaction during the week was the sale of the propeller Mary to McElroy & Son, of St. Clair. She is sixty-six tons burden, was built at Port Huron in 1874 by George Hardison, and last season plied between Detroit and Malden, and is of good speed. This winter she is having a new boiler. The old one exploded last season, while lying at her dock here, killing one person.

B. Whitaker & Son have purchased an eighth interest in the schooner Mineral State prior to which they held a like amount of stock. The terms were private.

The Detroit & Cleveland Steam Navigation Company, at their recent annual meeting, elected the following officers for the ensuing year: President and treasurer, John Owen; vice-president, James McMillan; secretary and general manager, David Carter; directors, John Owen, James McMillan, J. S. Newberry, Hugh McMillan, David Carter. Capital stock paid in, $450,000; debts, nothing, and personal property, $528,500.

The appointment to the command of a steamer on the Mississippi of Mrs. Mary Miller, of which there has been more or less comment in the papers, brings to my recollection an incident of a similar character in this locality. Away back in the '60s a Frenchman was engaged in the wood trade between St. Clair and this port. His crew, beside himself, was his wife and two lads aged 13 and 15. In due time his wife was left a widow, but nothing daunted, she was bound not to "give up the ship" and with the assistance of the boys assumed command of the craft herself, beside keeping up the galley. Not unfrequently have I seen her beat up the Detroit river when, finding the wind too close-haul, she would order the mud hook let go and pipe all hands to grub. I regret my inability to give names; it is nevertheless a fact. J. W. H.

BUFFALO.

Special to the Marine Record.

Captain Fagan is getting the propeller William Edwards' topsides and ceiling calked.

Captain C. E. Benham, of the firm of Palmer & Benham, vessel agents, Cleveland, was in this city on Friday last.

Captain Andrew Graves, formerly of the steambarge Coffinberry, will command the steambarge Hecla next season.

Captain John Martin, formerly of the Guido Phfister, will command the steambarge Coffinberry next season.

Captain Thomas Riardon, who sailed the schooner Monitor, will this coming season sail the schooner Cheney Ames.

Captain George Warner, of the firm of Warner & Becker, vessel agents, Cleveland, has been in this city for a few days.

Captain Scott, of the firm of Scott & Berriman, insurance agents and vessel brokers, Cleveland, paid a visit to this city last week.

Captain Robert Graves, formerly of the steambarge Hecla, will have command of the new steambarge building by the Union Drydock Co. for Ash & Danforth.

Howard H. Baker & Co., shipchandlers, will supply the new United Steamer Commodore Perry, recently built here by the Union Drydock Co., with new wire rigging, sails and outfit.

Captains Thomas Maytham and John Kelderhouse, accompanied by their wives, have gone on a trip to Florida and through the Southern States. They will return to Buffalo in about six weeks.

Captain Leith, who sailed the schooner Lizzie A. Law, will resign command of her in favor of his brother, who has been with him as mate, and will take command of the schooner Erastus Corning the coming season.

O'Grady & Meager are building at their yard, foot of Church street, for Captain Thomas Maytham, a very fine tug 70 feet in length over all, 15½ feet beam and 8½ feet depth of hold. She will make a good addition to the Maytham Tug Line.

William Hingston & Son, yacht and boatbuilders, foot of Porter avenue, are rebuilding one of Superintendent D. P. Dobbins' lifeboats. She was formerly an open boat, but will, when rebuilt, be self-righting, self-bailing and unsubmergable. She will be sent to do service at No. 1 station, Big Sandy creek, Lake Ontario. They are also building a steam yacht 35 feet over all, 6 feet beam and 3 feet hold, and several 15 feet row boats. W. Hingston built the celebrated yacht Cygnet, which our readers will find represented among the various vessels on the heading of the MARINE RECORD.

Joseph Supple, boat and yacht builder, is building for Captain Joseph Day a steam yacht 62 feet over all, 12 feet beam, 5 feet depth of hold. She will have an engine 10x12 and will be used as a pleasure yacht on the Niagara river. He is also building a steamyacht, length over all, 40 feet; beam, 9 feet; depth of hold, 4 feet; engine, 6x8. She will be used on Chatauqua lake by J. Supple, her builder, who is also building several sail and row boats for use there.

Hingston & Woods, the celebrated dredging and docking firm, whose offices are at

[*Continued on 5th page*].

MARINE LAW.

MARINE INSURANCE—THROUGH BILL OF LADING.

U. S. Dist. Court, South. Dist. of New York.

Red Wing Mills vs. the Mercantile Insurance Company.

Sidney Chubb, Esq., for the libellant. Messrs. Scudder and Carter for the Respondents.

On the 14th of December, 1878, the libellants delivered to the Merchant's Transportation Company, at Red Wing, Minnesota, 800 barrels of flour to be transported from Red Wing to Glasgow, Scotland, and received what is known as a through bill of lading, entitled, "The Merchants' Dispatch Transportation Company and the State Line." On the 16th of December the libellants took out a certificate of insurance from the respondent's company to the amount of $2,800 upon the 800 barrels of flour insured, to be shipped "on board of the State Line at and from New York to Glasgow, Scotland." On the arrival of the flour at New York, one of the regular vessels of the State Line having been totally lost, and there being an accumulation of goods, the agents of the State Line, Austin, Baldwin & Co., took to themselves an assignment of a charter-party of the steamship Zanzibar from the agent of the New York Central Railroad Company, who held the charter of the Zanzibar, and thereupon, on account of the State Line, Austin, Baldwin & Co. loaded her with wheat and peas in bulk, and other cargo, including 400 barrels of the flour in question. The Zanzibar shortly after sailed from New York and has never been heard from. The claim of the libellant's for those 400 barrels of flour was adjusted by the respondents' agents in London, as a total loss payment, however, was resisted on the ground that the policy never attached as respects the Zanzibar, because, as alleged, she was not a vessel belonging to the State Line.

The through bill of lading contained among others, the following clauses:

* * * * *

"6th. It is further agreed that the said Merchants' Dispatch Transportation Company have liberty to forward the goods or property to port of destination by any other steamer or steamship company than that named herein, and this contract is executed and accomplished and the liability of the Merchants' Dispatch Transportation Company as common carriers thereunder terminates on delivery of the goods or property to the steamer or steamship company's pier in New York, when the responsibility of the steamship company commences, and not before.

"7th. And it is further agreed that the property shall be transported from the port of New York to the port of Glasgow by the said steamship company, with liberty to ship by any other steamship or steamship company."

The charter-party of the Zanzibar is dated December 18, 1878, and provides that the Zanzibar, classed as 100 A 1 1, in measurement 2,245 tons, should proceed from Liverpool to New York and thence back with a cargo of provisions and grain or cotton, at a specified rate of freight, to some one safe direct port in the United Kingdom of Great Britain and Ireland, etc. On the 28th of December, the ship being then in New York, all right, title and interest in the charter-party was transferred to the agent of the State Line. By the terms of the charter-party the navigation of the ship remained entirely under the control and at the expense of her owners, and not of the charterers.

Evidence was given at the trial to the effect that on vessels belonging to regular and known lines of transportation, the rate of insurance is less than upon independent vessels. Evidence was also given by several agents of insurance companies that they would not consider a single vessel employed upon a single trip, like the Zanzibar to come within the description of the State Line, referred to in the certificate of insurance.

Brown, J. I do not think that this case should be determined with any reference to what the agents of the insurance companies in New York might consider as coming within the description of the State Line. The merchants who shipped those goods by a through bill of lading a thousand miles away in the interior, and who deal with the insurance company's agents there, have a right to rely upon the ordinary meaning and scope of the terms used in the certificate of insurance unless a more restricted meaning is proved to have been recognized and established by general mercantile usage, or else expressly brought to their notice; neither of which was done.

This insurance was not upon any particular vessel. It was manifestly intended to be as broad as the State Line, which was acting in conjunction with the Transportation Company in obtaining goods on a through bill of lading. In my judgment, therefore, the State Line must be held to embrace all vessels which were navigated under the possession, control and management of the State Line, whether the vessels were such as existed on the date when the certificate of insurance was issued, or were new vessels introduced into that line afterwards, on board of which the goods might be shipped, or whether the vessels were owned or were merely chartered by that line, either before or after the date of the certificate provided they were in its possession and control. Nor can I deem it of any consequence that the vessel performed but a single voyage, provided that upon the voyage upon which she sailed she was in the possession and under the management and control of the State Line. If so, she was, during that voyage, a part of the State Line, and was one of the vessels of the State Line, *pro hac vice*.

If, on the other hand, the vessel which carried the flour was not in the possession or under the management or control of the State Line, then the case would be one of a carriage of the goods by another steamer to which the State Line had transferred them.

The express conditions of the through bill of lading gave the State Line the right to transfer the goods to any other steamship or company; and if the State Line did thus transfer the carriage of 400 barrels, a part of this consignment, to any other vessel, in accordance with this provision, it seems plain that the certificate of insurance would not attach to the latter vessel. The existence of this provision in the through bill of lading was notice to the libellants of the necessity of watchfulness on their part in respect to any transfer of the goods by the State Line to any other steamer, and of the need of provision for such a contingency in their insurance.

After the loss of the Zanzibar was suspected some correspondence between the parties to this suit arose on that very point, from which it is clear that the libellants were aware of this contingency in regard to the insurance, and of the necessity of an assent by the insurance company in order to hold them as respects any other vessel to which the flour or any part of it might have been transferred.

The terms of the charter of the Zanzibar, of which the agents of the State Line took the transfer, are such as show clearly that the agent of the State Line did not acquire the possession or and control of the navigation of the latter vessel. It was a contract of affreightment only, and by the assignment of it to the agents of the State Line gave them the right only to lade the ship with such and such goods. The possession and the responsibility and control of the navigation of the Zanzibar remained solely with her general owners. And it was under such a charter-party that the 400 barrels in question were laden on board the Zanzibar by the State Line.

This in my judgment was a transfer of so much of this flour to another steamer within the terms of the provision of the bill of lading. The State Line had no possession of the Zanzibar and no control over her. They loaded the flour on board of her as any merchant might have done, at a specified rate of freight, for which, under the terms of the charter-party, the vessel and her owners contracted to deliver these goods at Glasgow.

On the ground, therefore, that neither the possession nor the control of the Zanzibar upon this voyage was in the State Line, I must hold that the Zanzibar was not one of the vessels of the State Line, even temporarily, or *pro hac vice*; that the certificate of insurance, therefore, did not attach; and that the libel must be dismissed with costs.

January 9, 1884.

The work of taking up the old wrecks which obstruct navigation in the river at Mobile, Ala., is now under way.

GENERAL NEWS.

The French Minister of Marine opposes the projected elevated railway across the straits of Dover.

Messrs. Robert Palmer & Sons, of Noank, Ct. have recently launched a very handsome pilot boat for Mr. Samuel Brockington and others, of Brunswick, Ga. She is 82 feet long, 21 feet wide and 9 feet 6 inches deep.

A combination of the lighted and whistling buoy is to be made it is said, the Bigler (Courtney patent) whistling buoy and the Foster lighted buoy, people having joined forces. This combination buoy is a good idea.

David C. Keller, pilot of the Scioto, sunk in collision near Mingo Junction, July 4, 1882, and forty-four lives lost, was found guilty at Parkersbug, W. Va., Thursday of voluntary manslaughter, but recommended to mercy.

The American Shipbuilding Co. launched from their yard at Philadelphia on February 6, a 3-masted iron centre-board schooner, built for Captain Maloy and others. She is intended for the West India and general coasting trade.

Captain Call of the ship J. E. Ridgeway, presented to the Philadelphia Branch of the Hydrographic Office, a large piece of pumice picked up by him in the Strait of Sunda, after the eruption of Krakatoa. The piece has been sent to Washington, where it will be placed on exhibition in the Smithsonian Institute.

Of the fourteen scientific expeditions sent out by the leading governments of the world to make observations of different stations in the Arctic regions during the year ending August 31, 1883, eleven have safely returned, and three—including that of the United States at Lady Franklin Bay—will continue their observations for about another year.

The House Shipping Committee has authorized Mr. Dingley to report favorably his bill to constitute a Bureau of Navigation in the Treasury Department. The bill provides for a Commissioner of Navigation and assigns to the bureau the charge of all matters relating to vessels and seamen now surpervised by the Register's office and Navigation Division.

The National Board of Trade recently discussed the matter of fictitious bills of lading. The discussion arose from reference to alleged fraudulent bills covering fictitious shipments from points for the South to New York and New England. A committee was appointed to prepare a bill on the subject to be presented to Congress. The same committee was instructed to prepare a bill securing advances of money made upon bills of lading.

"It is generally thought," significantly observes the Washington Star, "that the promoters of the Hennepin canal scheme lived fully up to their opportunities in the Mississippi river convention just held in this city. The tactics by which the convention was made to endorse that project is spoken of as a striking illustration of the curious natural phenomenon known as the tail wagging the dog." That's a good scheme to keep a close watch on.

Another new steamdredge, named the Nathan Appleton, owned by the American Contracting and Dredging Co., of New York, for services on the Panama Canal, has almost been completed at Philadelphia. She will sail from the latter port on or about February 20, in command of Captain Wiltbank. The Nathan Appleton takes the place of the Prosper Hurne, recently destroyed by fire at Aspinwall.

An exchange says that at the present time 530 American built ships are on the ocean, of which 158 are under foreign flags. Of those under the American flag 253 were built in the State of Maine, while only 119 were built in other States. Of these ships 115 were built in Bath alone. Less of the Maine built ships have passed under foreign flags than those of the other States. Only 15 Bath built ships sail under the flag of other countries. The Maine ships are the finest that sail the ocean in all that makes up the prefect sailing vessel.

The wretched condition of the American navy is being frequently illustrated nowadays, and if a few more accidents occur the House of Representatives will be willing to appropriate something to keep it in floating shape. The steamship Saratoga, which has been on the docks at the Brooklyn navy yard, while passing into the harbor recently was run into by a ferryboat and damaged so much that several months more of tinkering will be needed to put her into condition for sea service. Here is a new text for the pending debate on the naval appropriation bill.

In these days of rapid changes the number of coast lights is constantly increasing in all growing States. Take the Australian coast: A shipmaster approaches it with a chart several years old; on it is marked a light at a certain point, but since the chart was made another light has been erected on the same shore line. The captain sees a light, takes it naturally to be the one marked on his chart, lays his ship accordingly and runs his ship ashore. If he had possessed the most recent chart or the latest corrections on his own the loss would not have occurred. There are many such cases of shipwreck.

Dr. J. J. Wild, F. R. G. S., sums up as follows the results of recent investigations into the causes of the color of the sea, and of the apparent discoloration of the sea-water in certain areas of the ocean: "The various tints of blue and green which constitute what may be called the proper color of sea-water are due to a greater or less operation of salt held in solution, the color being an intense blue when the water is very salt, and changing by degrees to a green-blue, or blue-green and green color as the water becomes more fresh. On the other hand the abnormally colored red, yellow, brown and inky seas owe their appearance to the accumulation of large masses of sea-weed, from the gigantic Algae, which fringe the shores of oceanic islands, to the microscope diatoms; but almost as frequently the discoloration is caused by myriads of animal organisms collected in shoals at the surface of the ocean.

The Board of Supervising Inspectors of steamboats adopted inspectors an amendment to the rules of the steamboat inspection services prohibiting all persons on passenger steamboats, except the proper officers of the boat and officers of the inspection service, from entering pilot houses while the boats are under way. Mr. Fehrenhatch, Inspector of the Seventh District, proposed the following amendment to rule 13 relating to life boats on river steamers: Passenger steamers navigating rivers must be supplied, in addition to the boat required in the first paragraph of this rule of proportion, with boats as follows: Steamers between 100 and 300 tons burden, one boat; between 300 and 600, two boats; 600 and 900, three boats; 900 and 1,200, four boats; 1,200 tons and upward, five boats; provided no steamers embraced in the rule be required to have more life boats or a greater capacity than sufficent to carry passengers allowed by the certificate of inspectors, including the crew.

STEAMBOAT ENGINEERS.

A meeting of the board of examiners for certificates for engineers is convened for Tuesday, February 26th, at the Custom House building, Toronto, at 10 a. m. A candidate for third-class engineer must have served an apprenticeship of not less than three years in a marine engine shop, and been employed on the making and repairing of such engines; or, if he has not served such apprenticeship, he must prove that he has been employed for no less than three years as a journeyman mechanic in some workshop on the making and repairing of such engines. In either case he must also have served twelve months in the engine room of a steamboat as engineer on the watch; he must be able to describe the boilers he has been accustomed to watch, their weak points, (if any,) the feed-water arrangements, steam pipe valves, and safety-valves, and their capacity and efficiency; he must have sufficient knowledge of the stay-power of the boilers to know if they were safe at the working pressure carried in them; he must know the method of lining the engine, setting the valves, and adjusting the connections; he must write a legible hand, and know the first five rules of arithmetic. A second-class engineer, besides the qualifications of a third-class engineer, must have twenty-four months' experience in the engine room of steamboats of not less than thirty nominal horse-power, as engineer on the watch.—*Kingston News.*

THE FIRST WRECK ON LAKE ONTARIO.

The first vessel ever wrecked on Lake Ontario, was the Ontario, built at what was then known as Deer Island, (now Carleton) in 1779. She was the largest vessel ever on the lakes up to that time. According to the history of that period she was capable of carrying a thousand barrels of freight.—*Ogdensburg Journal.*

THE FITZGIBBONS BOILER.

A correspondent of the Syracuse Sunday Herald speaks as follows of a boiler of the Fitzgibbons pattern now under construction in this city:

There is now building in the boiler shops of the Kingsford iron works a huge boiler, which is destined for use in a new steamer now building at Clayton, which will ply on the St. Lawrence river. The boiler is of the new improved Fitzgibbons pattern, and is the largest ever manufactured in Oswego, being eight feet in diameter by sixteen feet in length, and its weight will exceed twenty-six tons. There are to be 142 iron tubes penetrating the interior, which will give a heating surface of 2,600 square feet. The design, were drawn by W. S. Smith formerly of Utica, now in the employ of T. P. Kingsford, and the work is progressing under the supervision of Mr. Fitzgibbons, the patentee of the new feature about the boiler. In the last few years nearly a score of these boilers have been in use in the states and in Canada, and Mr. Fitzgibbons claims they have in every instance given entire satisfaction and fully demonstrated their superiority over any of the old patterns in use. Mr. Kingsford has now a contract to build another somewhat smaller boiler for the Hall brothers of Ogdensburg.

Mr. Fitzgibbon, the inventor of this boiler is a very ingenious Oswego mechanic. He has invented and put into use many valuable machines and implements. His improvements of the steam boiler are said by those mechanics who have tested them to be of great value and of such a character as will cause them to be universally adopted eventually. The city saving bank has had one put into its banking building. It has already been found that it will take only half as much coal to warm the premises as was consumed for the same purpose last year, although, as every one knows, the present winter has been characterized by much more severe weather than last winter. It was a boiler of the Fitzgibbons pattern which was recently introduced in the city hall for heating purpose and those acquainted with its merits say it will not require half the fuel to supply it that the old boiler did, and will warm the building a great deal better. Indeed, the fault most likely to be found is that it will keep the premises too warm, unless care is taken by the engineer to moderate the supply of steam to the radiators. The improvements made by Mr. Fitzgibbon are just as valuable and equally available in the construction of marine boilers and those for driving machinery generally, as for heating purposes.—*Oswego Times.*

A NOVEL INVENTION.

A very novel scheme for establishing a permanent channel in the Mississippi river has been presented to Congress in the shape of a petition by the inventor, M. J. Adams, who asks for an appropriation to enable him to bring his experiment to a successful termination. He says he has completed 45,000 feet of what is known as Adams' flume, at a cost of $9,500. It is thus described: "It is a perforated tube about twelve inches in diameter shaped like the letter V. divided into two chambers, upper and lower, by a partition. The upper holds the water under the necessary pressure the entire length of the tube. The lower lies quiescent until the operations commence. The water on the upper chamber is let through the opening in the partition into the lower chamber and through the jets stirring up the sand, holding it in suspension until the current carries it off to some lost place, where it forms banks like a canal. The number of jets operating at a time is covered by pressure. Where there is any obstruction it is opened on it like a battery. No sand, gravel, or moderated hardpan can stand near it. To lay it in one unbroken line in the center of the river from its head to the Gulf, it will secure a channel the necessary depth throughout and keep it open all through. To give the invention an undeniable test would require about three miles, which can be procured from St. Paul down, it being almost checked in summer. The result of the test will give a permanent channel the distance laid, affording a valuable permanent improvement at one quarter the ordinary cost."—*Inter Ocean.*

FIRST VESSEL BUILT ON THE BAY.

In 1801 says the Belleville Intelligencer, Captain Murney, father of the late Hon. E. Murney, of Belleville, who came to Kingston in 1797, and who had acquired some land in the vicinity of the Lake on Mountain, near Picton, conceived the idea of building a vessel at the latter place. He found an abundance of red cedar on his land, and knowing the durability and toughness of this species of wood, determined to test it in the construction of his vessel. The result was a handsome craft, capable of carrying "700 barrels of flour beneath her hatches," which traded on Lake Ontario for many years and "made a small fortune for her owner." This pioneer vessel on the upper waters of the bay was named the Prince Edward. She was in good condition during the war of 1812-14, and was for a time employed by the Government as an armed vessel.

We have no means of ascertaining how long the Prince Edward was in commission, or when, how or where she ended her career, but it is probable her services extended over a period of more than twenty years. It is claimed that she was the first vessel to land at the Wellington pier, which was constructed about 1830.

Captain Alex. Pollock, of Port Stanley, has, on the occasion of his retiring from sailing, received from Mr. Charles J. Hope, the chairman of the Hamilton & Northwestern Transportation Company, a testimonial expressing the company's high regard for his services. During the past fifty-four years the captain has sailed the lakes, and for about forty years has been associated with the present H. & N. Transportation Co., and he has ever been found a fearlessly honest man, a noble sailor, a Christian and as truthful as the rising sun. Many changes have taken place in lake navigation since Captain Pollock sailed the schooner Sir Charles Bagot through the Welland canal. The testimonial is beautifully engrossed on parchment.—*St. Thomas Times.*

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Her length is 135 feet, beam 26 feet, and hold. 10 feet 10 inches. Boiler 17 feet long, 7 feet diameter; three flues, two 16 inch and one 17-inch. Engine 22x42. Carries 240,000 feet of lumber. Speed, 11 miles light, and 9 1-2 loaded. Insurance valuation, $15,300. Address MARINE RECORD Office, No. 2 South Water street, Cleveland, O.

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SECOND HAND TUBULAR BOILER, 44 inches diameter, 43 tubes 3 inches diameter and 12 feet long, steam drum 30 inches diameter, 40 inches high; front grates, fittings and breechings; good order.

SECOND HAND MARINE BOILER, in good order; Shell, 7-16 inch iron plate; diameter, 9 feet 6 inches, length, 18 feet; 129 tubes 4 inches in diameter, 11 feet 4 inches long, three flues 18 inches diameter; two flues 16 inches diameter, two flues 10 1-2 inches diameter; fire box, 6 feet long, 4 feet high; steam chimney, 7 feet high

SECOND HAND MARINE BOILER four feet wide, 6 1-2 feet long, 5 feet high, sixty-four 2 1-2 inch tubes 60 inches long, cast iron breeching, good as new.

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WORLD MAN'F'G CO. Menlo Park, Cal. Jan. 3, 1884.
Gents:—The $8.00 Aluminum Gold Watch gives perfect satisfaction. I enclose $30.00 for 9 more watches balance to be C. O. D. Send at once. Respectfully Henry Braithwait.

WORLD MAN'F'G CO. Gunnison, Col. Jan. 16, 1884.
Sirs:—Some months ago I purchased one of your $8.00 New American Lever Watches and I sold it for $25.00. Please send me another. Enclosed find cash. Yours, H. J. Green.

W. H. WHITE, Woodburn, Ky., July 23, 1883. Writes:—The two New American Lever Watches purchased from you received all right. Sold at once for $15 each

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A. A. POMEROY, Editor and Proprietor.

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Ten cents per line, nonpareil measurement, or $1.20 per inch, each insertion; four weeks $4.00; with a liberal discount on orders amounting to $40.00 or over.

COMMANDER W. S. Scheley has been selected to command the Greely relief expedition.

THE Boston & Savannah Steamship Company will try to limit its liability for damage in the loss of the City of Columbus.

IN another column will be found the second number of the ancient mariner series of letters, from our esteemed Detroit correspondent, which will be found full of interest.

A MINATURE model of the old ship New Orleans, destroyed at Sackett's Harbor recently, is on exhibition in Oswego. It is the work of Henry Holdridge and is a very dainty attraction.

WE see that the MARINE RECORD article, "Reminiscence of Lake Ontario" is going the rounds of the press credited to the Watertown Times. "Piracy of the Brain" is what the Nautical Gazette calls it.

THE Lake Superior News very aptly observes that as the American navy is so slow in hunting up Lieutenant Greely that it would be a good plan for the Lieutenant to come out of his winter quarters and hunt up the navy.

THE Mechanical Engineer, published by E. P. Watson & Son 110 Nassau street, New York comes to us in an enlarged and improved shape and is worthy the patronage of all interested in matters pertaining to engineering.

OPPOSITION to the Wilson patent steam-shovel still continues, and after a thorough investigation the Senate voted down the favorable report of the committee. The last patent on the shovel expired in March, 1882, and bills have been introduced in both branches for its extension some years.

A BILL was introduced in the House on the 18th by Representative Foran to regulate certain matters relative to American shipping. It provides against overloading by requiring every vessel to have its water line distinctly painted upon the hull at a point to be fixed by official measurement, and no vessel loaded below that line shall be granted clearance from any port on either seacoast or inland water. It further provides against insufficient crews by prescribing for steam and sail vessels a certain crew for a fixed tonnage and an increase for additional tonnage, according to a fixed scale. Another provision is that no clearance shall be granted to any American vessel whose crew shall be more than two-thirds composed of unnaturalized foreigners. A section applicable only to the lakes prohibits masters of vessels from discharging at Canadian ports except for certain good cause specified, any sailor shipped at an American port without the consent or against the will of such sailor.

THE IRON INTEREST.

From the Michigan exchanges and correspondence relative to the above subject, we learn that the prospects at present are not very flattering for early activity at the mines. The report from Marquette is that the expected reaction in the ore market has not yet set in, and retrenchments and reductions are the order of the day. Some of the newer mines are getting ready for a season of active work, but the contrary is true of the old ones. The Nanaimo, near Stambaugh, is preparing to increase its product, and expects to get out 100,000 tons next summer. The Mastodon and Paint River mines are also going in for all they are worth. There is thought to be some disposition among the operators in this vicinity to ignore prevailing mistrust regarding their finding a market and go on producing at all events. Norway and Vulcan are running with light forces and making no improvements. The Pennsylvania mining company is putting down an expensive shaft for pumping and hoisting purposes. On the Marquette range matters are in *statue quo*. The Boston has shut down but only temporarily, it is thought. The Iron Cliff recently discharged one hundred men and reduced the wages of the remainder. The other mines are running at a steady pace but give no indication of an increase of work, as the shipping season approaches. The Detroit, Mackinac & Marquette railroad is making preparations to get away with a good deal of ore the coming season. A large number of men are employed constructing a new ore dock at Marquette The old Fremont house will be taken for a depot and railroad offices. Rails are laid for about half the length of the extension from Marquette to Negaunee. At the latter place considerable trouble will be encountered in having to build a trestle to cross the Marquette, Houghton & Ontonagon railroad overhead; but notwithstanding this, the road will be ready to carry ore some weeks before vessels can run. What effect Mr. Morrison's bill will have upon this industry we cannot say, and it is believed that Mr. Morrison does not know himself. It is to be hoped, however, that Congress will extract sufficient wisdom from the protest of the iron and steel manufacturers and iron ore producers against the enactment of the bill to throw the necessary light upon it. Mr. George H. Ely, who spoke in behalf of the iron ore producers, said "the maufacture of iron and steel in this country is dependent on the development of the iron ore mines of the United States. He alluded to the growth of the latter and the large amount of money sunk in building up the iron ore industry. In the Lake Superior region it had led to the building of several railroads, and fleets of vessels were engaged in the trade. In the year 1882 the output of the Marquette and Menominee mines was 2,900,000 tons with an approximate value of $26,270,000 and in 1883, 2,300,000 tons or $14,750,000, the decrease being due to a decline in the iron trade. Mr. Ely spoke of the need of protection for American workingmen, stating that with iron ore on the free list, the Canadian mines being nearer, would send their ores to Ohio and Pennsylvania, and thus ruin the Lake Superior iron ore business, and the men who had risked their capital in it. Iron ore on the free list would enable the cheap labor of Spain and Barbary to compete with the American mines." The cross examination of Mr. Ely was mainly conducted by Representative Abram S. Hewitt, but the witness was well armed with facts to refute every effort of the examiner to gainsay his remarks. Mr. Vandyke, of Milwaukee, Hon. Wayne McVeagh and John Roach, the shipbuilder, followed with elaborate arguments in continuation with those already submitted. Afterward a delegation of workingmen was heard. They protested in the interest of higher wages and against any further reduction of the tariff.

OIL AND WATER.

Following in interest to mariners the proper construction of ships, is the subject involving their preservation. The use of oil has been advocated for some years as an artificial means of rendering comparatively harmless the violence of a heavy, swelling sea during a storm, and much attention is being now directed toward the experiments being made under the direction of Mr. Shields at the entrance to Folkestone Harbor, England, and which are meeting with considerable success. Mr. Shields, by means of a patented system of conducting oil from tanks on the pier by a force pump through leaden pipes some distance into the harbor, demonstrates the quieting influence the oil has on the tossing waters. The pipe is furnished with a series of upright tubes about seventy feet apart, each capped by a sprinkling rose, through the holes of which the oil is forced to the surface, changing the white crested waves into a glossy swell, the wide-spreading film forming an artificial breakwater. Probably the most useful and interesting experiments were made with Mr. Shield's oil projectiles, designed as life-saving appliances, not merely on the coast, but in case of shipwreck and rough weather at sea. The projectile, not unlike an ordinary oil can, is made of iron on eighth of an inch thick and holds nearly a gallon, time fuses connecting with a small metal chamber at the bottom for an explosive charge of powder. The shell is thrown from a mortar and bursting scatters its quelling contents over a radius of many hundred feet. Another method one more adapted to shallow water was tried. This appliance consists of long, flexible gutta-percha tubing attached to a solid iron cylinder of seventy pounds weight, which was fired from a mortar out to sea, and sinking kept in place the tubing. through which the oil found its way to the surface, making a temporary breakwater. The question naturally arises here and theories have been advanced: Could any of these appliances have proved benficial in the case of the wreck of the City of Columbus at Gay Head? We think not. That disaster, considering the condition ot things, is not chargeable to the violent sea, but to certain incapacities which will probably be made public in due time. Unless all other necessary measures are taken to avert disasters of that nature no amount of oil will have the required effect. After the Columbus struck the rock, however, the life-saving projectile mentioned above might possibly have rendered more easy the passage of the cutter in rescuing a few of the unfortunates. We are inclined to adopt the theory of that the swell running on an open sea may be influenced by the copious use of oil, but where that swell breaks on the rock and cliff, where vessels in nine cases out of ten are lost, it could not possibly have the effect of uniting the molecules and rendering the sea smooth.

LAKE ERIE.

SKETCHES OF EARLY TRAFFIC.

Special Correspondence Marine Record.

DETROIT, February 20.

Regarding the earlier events in connection with the history of Lake Erie the accounts given in the records are more varied than of any other of the northern lakes. In a previous communication is given a brief review of the Griffon as being the first to sail westward from above the Falls in 1679. Her starting point was from the Niagara river and after several ineffectual attempts, with a strong northeast wind she gained the broad bosom of that lake and passed Detroit August 12th of that year. After calling at Mackinaw she proceeded on to Green Bay and arrived there September 2. She took on a cargo of furs and again started on her return for the Niagara on the 18th of the same month, but foundered the second day after her departure and all were lost. Father La Salle with other Catholic missionaries who accompanied the vessel to the Bay did not go on board to return. The vessel was a full-rigged barque of 60 tons burden, but carried no top gallant sails and one yard on her mizzen. From this period on to the years 1767-'68 nothing is known of any vessel floating on the upper lakes. The loss of the brigs Gladwin and Beaver is given in the latter year named and both on Lake Erie.

During the year 1796 the schooner Gen. Macey was built at Detroit, of 90 tons burden. In 1803 this vessel sailed for the western extremity of Lake Michigan, under command of Col. Swearingon, with a company of soldiers and anchored off what is now known as Chicago. At that time there was but one white man's dwelling at that place, he being an Indian trader. The sloop Detroit was built the same year as the Macey at Detroit and was seventy tons burden. She was, it is recorded, the first vessel bearing the American flag on Lake Erie. She was purchased from the Northwest Fur Company by the United States Government, was weakly constructed and was soon condemned as unseaworthy and abandoned. The Washington was built in 1797 at Four Mile creek, near Erie, Pa., of fifty tons burden. She had a brief career, and the following season was sold to a Canadian, who took her over the Portage between Chippewa and Queenston, launched into Lake Ontario, sailed for Frontenac, now Kingston, and never heard of afterwards. The Tracey, above referred to, was wrecked on Fort Erie reef, opposite Buffalo, in 1809. During the year 1800 other vessels were built, and up to 1802 there were not to exceed twelve vessels on Lake Erie. The population of Ohio in 1800 was only 45,365 and was not yet admitted as a State. The brig Adams, a Government vessel commanded by Captain Brevoort, was built at Detroit. The Good Intent, a small craft, was built at Presque Isle and was sailed by Captain William Lee. She was wrecked in 1805 near Point Abino. At Detroit in 1802 the schooner Gen. Wilkinson, seventy tons burden, was built. She survived quite a number of years, was rebuilt in 1811 and her name changed to Amelia. The sloop Contractor was built at Black Rock, of sixty-four tons, and the Niagara on the Niagara river of thirty tons. Her name was afterward changed to the Nancy. Captain James Beard sailed the first named, and Captain Richard O'Neil the latter. In 1806 the schooner Mary, of 105 tons, was built at Erie by Thomas Wilson and commanded by Captain James Rough until the commencement of the war and was then sold to the Government.

Porter, Barton & Co. were at that period largely interested in vessel and commercial pursuits. This firm in 1808, purchased the schooner Ranger, and Captain Hathaway was placed in command. They also, in 1810, built the sloop Erie at Black Rock, and afterward sold her to the United States. There was also the schooner Salina, Captain Dobbins, the Eleanor and others that were in like manner disposed of for war services.

The Canadians had also several craft built at Grand River and at or near Fort Erie. Among these were the Union, 90 tons; Elizabeth, 100 tons; Gen. Brock and the Sylph. The latter was a sloop and belonged to the revenue service. The Elizabeth was seized by the United States Government at Sandusky, for violation of the revenue laws, and the Union was wrecked on Long Point.

But little of importance occurred, or of special interest, in the history of Lake Erie up to the beginning of the war of 1812, Commodore Perry's war vessels were built at Erie in thirty days and fully equipped. Peace between the two countries was declared in 1815. Soon afterward commercial pursuits revived and up to 1825 quite a traffic to and from different points was established.

The population of Buffalo in 1811 was 500 and in 1815, 2,412. But little was effected toward opening a harbor at that place until 1820, when a subscription was raised by the villagers amounting to $1,361. The Hon. Samuel Wilkeson was the originator of the undertaking, and soon the sand bar at the mouth of the creek was removed. Buffalo was incorporated as a village in 1813. Of all the lakes Erie has the most notable and beautiful islands, which of late years have been vastly improved with grape vineyards, wine vaults, as well as first-class hotels. Kelly's, originally Cunningham's Island, was first settled upon in 1808 by a Frenchman named Cunningham. Having built a log cabin he commenced trading with the Indians until the beginning of the war of 1812 when he fled and ultimately was killed during one of those memorable conflicts. The island did not change its name until 1840, having been previously purchased in 1833 by Datus and Irad Kelly. Its present prosperous condition is well known to those who wend that way. Put-in-Bay island, like that of the preceeding, was also first settled upon by Frenchmen sometime prior to 1812, the names of the parties being Vanchor and Colon. They were compelled to abandon it by the Indians, who, in turn, were also compelled to yield up possession by Commodore Perry's forces, who made it the headquarters of his fleet. The war over, it was taken possession of by Captain

Ben Napier, who was sole possessor until 1836, when it was sold, including other islands in close proximity, to Alfred B. Edward, by the State of Connecticut. It again changed ownership in 1854, falling into the hands of J. de Rivera, Esq., a New York merchant. These islands spread across the head of Lake Erie from shore to shore and are a very important adjunct of its history and need a more extended account than has been above related, and of which, at another time, we shall make further mention.

J. W. H.

IRON MARKET REPORT.

CLEVELAND, February 20.

There is no material change to note in the tone of the market, although the feeling is more buoyant and the demand compares favorably with last month. The trade is influenced to a great extent by the uncertainty regarding the probable action of Congress on the pending tariff bill. We quote:

CHARCOAL PIG IRON.

No. 1 Lake Superior charcoal	$23 00@24 50
No. 2 Lake Superior charcoal	23 00@24 50
Nos. 3 and 4 Lake Superior	24 00@25 00
Nos. 5 and 6 Lake Superior	23 00@25 00
Nos. 1, 2, 3, 4, 5, Salisbury	35 00@37 00
Southern charcoal	27 00@30 00

Reported by E. L. Harper & Co., Cincinnati.

The flood, which culminated here on the 14th inst. at 71 feet 1 inch, has proved more disastrous to the great Ohio Valley than we predicted last week or could have anticipated. The waters have reached far into the interior, and nearly all the mills in the West, Pennsylvania, Pittsburg, West Virginia, Mahoning Valley, and Ohio river sections have been inundated. The presence of this deluge, unprecedented since Noah's record, has necessarily interrupted general business and almost suspended traffic in iron in the large territory flooded. The consequent large curtailment in the production of manufactured iron will give an impetus to the trade when resumption becomes practicable. Many of the furnaces in the area of the flood, taken by surprise by the extraordinary rise of the water, are affected with chilled stacks, so that in a not inconsiderable measure the production of pig iron has been abridged. It is but reasonable to suppose that materials and prices will appreciate in value. The general demand for pig iron in the East, North and West continues fairly active. Prices rule firm and we quote as market, as follows:

FOUNDRY.

Hanging Rock Charcoal No. 1	$22 50 to $23 50
Hanging Rock Charcoal No. 2	21 25 " 22 25
Strong Neutral Coke No. 1	18 50 " 19 00
" " " No. 2	17 50 " 18 00
American Scotch, No. 1	19 00 to 19 50

GREY FORGE.

Neutral Coke	$16 75 to $17 25
Cold Short	16 25 " 16 75

CAR WHEEL AND MALLEABLE.

Hanging Rock, strictly cold blast	$ 27 75
" " warm blast	24 00 " 24 50
Lake Superior "charcoal" all grades	24 00 " 25 00
Southern Car Wheel, strictly cold blast	26 50 " 27 50

MARINE DIRECTORY.

We have now in course of preparation a complete and comprehensive guide to the shipping interests of the great lakes.

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The work will contain a complete list of all vessels navigating the lakes, arranged alphabetically, and showing the name, class or rig, tonnage, trade, where and when built, and by whom, port of hail, owner's name, etc., carefully compiled from official sources and corrected to the latest date. Also a notice of every port on Lakes Ontario, Erie, Huron, Michigan, and Superior, and their connecting rivers, showing their situation, population, principal directory of all interests connected with navigation that are located at that port, viz.: the names of all vessel owners, shipping agents, ship brokers, marine insurance companies and their agents, marine reporters, shipbuilders, ship chandlers, sail makers and riggers, block and tackle makers, ship smiths, etc., and of all trades connected with the shipping interests in all their branches.

In addition lists will be given showing all custom houses and customs officers, United States Revenue cutters, marine hospitals and surgeons, and the regulations pertaining thereto; lights and lighthouses and the keepers thereof; docks, wharves, drydocks, life saving districts and stations, signal service stations, customs tariffs, distance of various ports, etc., etc., forming in fact, a complete epitome of information relating to the navigation interests of the great lakes.

The patronage of all interested is respectfully solicited.

R. L. POLK & CO., publishers,
Tribune building, Detroit, Mich.

File your MARINE RECORDS for reference.

[*Concluded from 1st page.*]

221 Main street, corner of Seneca, are building at their yard, foot of York street, another large dump scow: Length, 90 feet; beam, 24 feet; depth, 8 feet; carrying capacity, 230 yards. The firm have five large steam dredges, four steam derricks, eleven mud scows and one tug, which are used for dredging the harbor, for which they have the contract, and for other work. They have an extensive contract for building and making two miles of canal and docks for the Lehigh Valley railway in Buffalo, which will add about one-third more to Buffalo's dock capacity. This firm is doing as large a business if not larger, than any other firm on the lakes.

R. Mills & Co., shipbuilders, are building a steambarge, length over all, 230 feet; beam, 35 feet; depth of hold, 20 feet; main kelson, 24x12; sister kelsons, 16x12; double riders, 16x10; edge-bolted throughout; iron strapped, diagonal strapping 4x½ and 4x⅝; main cord, 9x¾; iron arch on ceiling inside extending to the upper deck, 12x⅝. She has been sold to M. J. Cummings, of Oswego and is in a forward state. She is ceiled to the upper rail, iron strapping all on, main deck nearly laid and her bottom planking nearly all on. The barge William Crosthwaite, owned by Edward Smith, has had new plankshear, stanchions, rail, double stringers inside and out, new bow and stern, and calking. The tug Annie P. Dorr, owned by O. W. Cheney, has had considerable repairs at a cost of about $800. The schooner John M. Hutchinson, Captain Frank Perew's largest sailing vessel, is getting extensive repairs, which will cost about $8,000, comprising 1,100 feet of main kelson, new decks, double stringers inside and out under the rail, new stern, hatch combings and hatches, refastening and recalking. She will be made as good as new. The schooner Blazing Star, owned by M. J. Cummings, of Oswego, will have new frames forward and aft, decks and deck frames and other repairs which will cost about $400.

The King Iron Works will supply the new steambarge now being built by the Union Drydock Company, for Ash & Danforth, with a new fore-and-aft compound engine, cylinders 28x45 and 52x45, and two Otis steel boilers 8½ feet diameter and 16 feet long; also a Perry & Hay compound engine, a duplicate of the steamship H. J. Jewett's, cylinders 22x42 and 42x48 and two Otis steel boilers 10 feet diameter and 16 feet long, for the new steel steamship to be built by the Union Drydock Co. for the Union Steamship Co.; also, a fore-and-aft compound engine, cylinders 26x42 and 48x42 and two Otis steel boilers 8 feet diameter 16 feet long, for the new steambarge being built by R. Mills & Co., for M. J. Cummings, of Oswego; also a fore-and-aft compound engine, cylinders 28x45 and 52x45 and two Otis steel boilers 8½ feet diameter 17 feet long for James Davidson's new steamship, building at West Bay City. They are compounding the engine of the steamer Philadelphia, putting new cylinders in the steamer City of Rome and putting new bedplate and doing considerable repairs to the engines on the steamer St. Louis.

MARYSVILLE,

Special to the Marine Record.

Messrs. N. and B. Mills bought Stag Island for $4,000 a few days ago and have engaged a large force of men, who are now at work cutting wood and dock timber. Messrs. Mills are going to build a dock on the island. They intend to use the wood for their barges. Stag Island is quite valuable for its gravel, sand and timber. Pilots will not like to see the timber cut, however, as it has heretofore been depended upon much as a guide or landmark to sail by on a dark night.

Captain T. A. Ellery will sail the propeller J. E. Mills again the coming season, and Captain J. Moore will resume command of the propeller Point Abino. The work of repainting the boats will be commenced this week. It is the intention to make some improvements on the boiler of the J. E. Mills in order to get a better draft.

OSWEGO.

Commander E. M. Sheppard, U. S. N., at present in charge of the school ship St. Mary's in New York harbor, came here to attend the funeral of his mother Mrs. Abigail Gray Sheppard, who died Staurday morning.

LORAIN.

Special to the Marine Record.

Mr. H. D. Root is pushing the new tug as fast as possible he has her all molded and the frames out and ready to put them up. He was obliged to take all the frames and keels, etc., and all toole used in the shipyard to high land on account of the high water. This has detained him for a week, but he says that all danger is now past and he will immediately commence work again. In connection with the tug and steamyacht he is building, Mr. Root is doing extensive repairs on the schooner Sumatra, Genoa and N. C. West. He is working about forty men which is considered pretty well for these times.

MILWAUKEE.

Captain Albert Icke's schooner, the J. A. Travis, is receiving an extensive overhauling this winter, the work being done by Ole Hanson, of that port, and consists of new outside planking and plankshear, stanchions and timber-heads which have been drawn out; a rudder new case, stock and post, to be spliced; new bulwarks on one side and repaired on the other; six deck beams, new hatch combings forward and aft new deck aft of the cabin; 36 feet of new ceiling on port side and 22 feet on starboard side; monkey rail abreast cabin; new taffrail and new quick-work outside and in, to be caulked from the waterline up; new stringers under the rail and outside of the stanchions; nine strakes of ceiling forward and aft, both sides. Repairs to be completed by the first of March. The outlay will aggregate about $1,500. The Travis will enter the carrying trade between Ellison Bay and Milwaukee again the coming season.

MENEKAUNEE.

Captain Thore Anderson will probably have charge of the steamer May next season. The boat will be placed in the fish trade by her owner, Wm. Zippel.

BAILEY'S HARBOR.

Chipman & Raesser's barge Burroughs is still here, shut in by ice. She has been kept busy keeping open a passage out of the harbor, so that she can leave when the ice in the lake is blown away.

STURGEON BAY.

The indications are that the several river and harbor improvements in this region will receive liberal appropriations at the hands of congress the present session.

It is probable that the old boiler which has been taken out of the tug Charnley will be placed in the plaining mill of the Sturgeon Bay lumber company. The boiler is the same that was formerly in the tug Reindeer, which was bought from the Peshtigo company.

Geo. Rodgers had charge of the engine of the tug Maxwell last week, but he was compelled to resign his position on account of having a previous engagement to run the steam ferry. Joe Bunker, who had charge of the Maxwell a part of last season, has come on here from Two Rivers and again, taken his old place.

Chipman & Raesser have purchased Captain Oleson's third interest in the schooner Napoleon, paying $1,000 therefor. The other interest in the vessel is owned by the party who will have charge of her the coming season.

The steambarge G. T. Burroughs has been laid up at Bailey's Harbor, the ice blockade preventing her from getting out. Captain Johnson and a part of the crew left for their homes at Milwaukee on Monday. The mate and engineer have been left in charge of the boat. It is the intention of the owners—Chipman & Raesser—to start the barge out again as soon as the ice leaves the harbor. A crew will be shipped on the boat where she lies, who will take her to Manitowoc, where her regular crew will take charge. It is not often that the weather is so stringent that a steamer can not get in or out of Bailey's Harbor on account of the ice.—*Advocate.*

SANDUSKY.

It is said that Captain O. F. Russell, owner and commander of the scow Oak Leaf, who resided at Port Clinton, has deserted his wife.

The steamer American Eagle is still making daily trips between this city and Put-in-Bay. Captain Magle reports the ice in the Island region from six to twelve inches thick. The only open water hereabout is between Kelly's Island and Marblehead, and just off Cedar Point.

DULUTH.

The propeller—or rather steambarge—Jay Gould will have fine cabins built on her before she takes her place on the Manistee's route.

The tug Myrtle, which was engaged last season in towing logs on the St. Louis and Nemadji rivers, is being entirely rebuilt at Sandusky, Ohio.

Captain Ira Holt is endeavoring to make peace with the Canadian custom house authorities so that the propeller R. G. Stewart can again run between Duluth and the landing.

The work of repairing the machinery and extending the main cabin of the propeller Agnes is nearly finished and she will be ready for business almost as soon as the ice moves out.

Cooley, LaVaque & Co. will buy another tug.

Captain Napier is in Chicago endeavoring to purchase a sutable steamer for the Agate Bay route.

Tug P. L. Johnson, which did towing in the harbor nearly all summer, was recently sold by Sandusky parties to J. Hursby, of Marquette.

Captain J. B. Yocum knows Duluth harbor fully as well as any living man and when he states that considerable dredging should and ought to be done before the opening of navigation in order to float the largest carriers, his warning should be heeded. This matter deserves the attention of the chamber of commerce.—*Duluth Times.*

MANITOWOC.

Captain James, Easson, formerly of the schooner F. M. Knapp is said to be engaged as commander of the J. I. Case for next season.

The sailor, James Matthews, who was injured on board the J. I. Case some two years since, has brought suit against the owners for $10,000 damages.

Captain Wm. Steele has been appointed master of the schooner Kewaunee in place of Captain W. W. Jones who will remove to Dakota.—*Times.*

SAULT STE. MARIE.

Captain Syms, formerly on the Manitoba, will sail the Quebec, and Captain H. Zeland of the propeller Glenfinlas, will command the Ontario this season.

Captain J. B. Mondor, is putting upper works on the Southern Belle, and will have a very desirable freight and passenger boat when completed. She will run between Detour and Taquamenon via. the Hay lake channel and will stop at all intermediate points. The boat will supply a long felt want.

KINGSTON.

In the case of Stacey v. the St. Lawrence Steamboat Company, which was tried at the Division Court recently, a verdict was given for defendants.

A Kingston mariner is in Cleveland endeavoring to secure a divorce from a highly esteemed lady.—*News.*

The Board of Marine Examiners is composed of Captain Thos. Harbottle, Toronto, (Chairman;) Captain McElhenny, of the Marine and Fisheries Department; Captain Thos. Taylor, Kingston, and Captain McIlwaine, St. Catharines. Captain Scott, R. N., Halifax, chairman of the Maritime Provinces, where the system has been in operation for some time, was present at the examinations at Toronto. It is said that between fifty and sixty mariners will go up for examination in Kingston. It is to be hoped that many will try for and succeed in getting certificates of competency. None have been secured at Toronto thus far. They should try and come out ahead.

The annual meeting of the Dominion Wrecking Company took place in Montreal on Wednesday.

Captain John Gaskin and John Scott, of the Persia, attended the Salvation Army meeting, the latter for the first time. Captain Scott was very much impressed. He thinks that if all mariners would join the army a sailors' lot would be a happy one.

Captain John Trowell, of the propeller California, and Mr. Jas. Blake have succeeded in passing a most successful marine examination, securing certificates of competency, without servitude, as captain.

WALKERVILLE.

The steambarge Ada Allen has been fitted up for the purpose of transporting grain from the Michigan Central elevator to the Walkerville elevator for H. Walker & Son.

FOG HORNS.

Of more recent growth than lights and balls as part of the equipment of many of the floating lights is the powerful fog signal which is brought into play during a fog, ironically termed a "siren," nothing can be more disagreeable than the din raised by this instrument and its iron trumpet worked by a hot air engine. When in use the horn is pointed to windward. The sound produced is exactly like bellowing or lowing, if that be more correct, of a great cow. A further means of distinction in the shape of high and low notes has been of late introduced to guard against confusion with the horns of navigating vessels and other light ships. For distinctive purposes, also, the blasts are varied at different stations. So disagreeable is the fog-signalling duty acknowledged to be, rest and sleep being pretty well out of the question "in the same ship with it," that in addition to extra pay to certain of the men for acting as signal drivers, the whole crew receive what they call "noise money," an allowance calculated at the rate of so much an hour for the time the signal is actually in operation.

To make our floating lights useful again in another way, the experiment of connecting one of them with the shore by means of an electric telegraph cable is about to be tried. The Sunk is the vessel chosen. She lies about nine miles in a straight line from the Essex shore in the vicinity of a dreaded danger known as the Long Sand. The cable will be landed at Walton-on-the-Naze, and the wires connected with Harwich and Ramsgate. Whenever, therefore, a vessel is wrecked within sight of the lightship, or is heard of there as needing assistance, a message can at once be dispatched to either or both of these places from the Sunk, and the lifeboats will doubtless be on the spot as quickly as it is possible for them to be. A model illustrating the proposed experiment will be remembered by the visitors to the Fisheries Exhibition as by no means one of its least interesting features. The telegraph cable will be carried nearly up to the bows of the lightship from the ground through the center of a double chain cable, and will be fitted with appliances to prevent it from fouling with the moorings or becoming twisted through the swinging of the ship. Should the experiment prove successful, we may expect to see many of our floating lights thus connected with the land.

We have now, or shall have very shortly, something like sixty lightships on the coasts of England and Ireland, exclusive of those under the jurisdiction of port and harbor authorities. Scotland's seaboard needs apparently no lightship. The chief danger the floating lights encounter, singular to say, seeing that they are at anchor, is that of collision. Last year nearly twenty cases occurred of English lightships being run into and more or less seriously damaged by passing vessels. The penalties imposed by act of Parliament for this ungrateful behavior are occasionally enforced, as it only seems right they should be, looking at the possible gravity of the consequences.

The oldest station for a lightship is the far-famed Nore, which was marked as far back as 1732. The vessel lies in the best position for entering the Thames and Medway and to clear the Nore Sand. The lightship riding in the greatest depth of water is that lying between the Land's End and the Scilly Isles, in forty-two fathoms, near the cluster of rocks known as the Seven Stones; while the one most distant from the land is that placed to mark the outer Dowsing shoal in the North Sea, about thirty-three and a half miles from Spurn Point in Yorkshire. All lightships give direct warning in the event of a vessel approaching too closely to the shoals in their vicinity by firing a gun and hoisting the signal "You are standing in danger." They also in certain cases, by means of special call rockets of great brilliancy, fetch assistance from the shore to vessels in distress.

Following upon the lightships, and seen often in the intervals between them like a line of skirmishers along the edge of the sand, come the buoys, which have of late been associated with several very interesting experiments. Broadly speaking, we can dispose of their general features in a few words. All the navigation buoys now constructed are, like our war ships, made of iron, wood being quite superseded by it. In shape there are but two kinds of buoys commonly used—conical, or those which show the pointed top of a cone out of the water, and "can," or those which have a flat top. They are so distinctive that the one has been seldom, if ever, mistaken for the other. The former ride higher out of the water, can be seen further, and are altogether more conspicuous. They range in size nowadays from six feet in height to thirteen feet in the case of the former, and to eight feet in the case of the latter. There are, however, several spherical buoys, which are simply, as their name implies, globular, and show half or more of their shape above the flotation line. Like the lightships, the buoys preserve their stations admirably, as a general rule, and are in the case of the buoys of the largest size moored with the chain that has done its duty for three years in holding one of the floating lights. A long length of chain is here again depended on to preserve position, equaling about three times the depth of water in exposed situations. The sinkers or weights to which the lower end of the buoy-chain is attached are simply flat pieces of iron of an oval shape, of from six to forty hundred weight, with a shank or handle in the center. The distinctive mountings or beacons for buoys at the present time are balls or globes, cages, diamonds, triangles, and St. George's and St. Anthony's crosses. The mountings are at the upper end of a staff, the lower end of which is fixed in the top of the buoy.

The chief aim of most of the recent experiments with buoys has been to secure appliances in connection with them that will denote their position at night or in foggy or thick weather. Take the gas-lighted buoy, which is spherical in shape, and forms in itself the reservoir for the supply of gas to be used. From this reservoir a tube projects about twelve feet or so above water, carrying at the upper end a lantern and burner so protected that the flame is proof against wind and water. The illuminant is compressed oil gas. This gas is made from paraffine once refined; it is subsequently drawn by means of a compression pump from the gasometer, and forced into gas-holders at a pressure of 150 pounds to the square inch. These gas-holders are conveyed alongside the buoy, which is thereupon connected with a flexible tube, and the buoy is filled in a short time at a pressure of about 90 pounds to the square inch. The burner is set to work, and the light left to burn day and night until the next supply of gas is required, which may not be for a month or two, or even longer, according to the quantity of gas consumed and the size of the reservoir. The pressure of gas in the burner is so beautifully regulated by a very delicately constructed automatic appliance that whatever the quantity of gas in the buoy may be, the supply to the light is always the same. The flame commonly shown is equal in intensity to about twenty candles and can be seen fairly well as a rule about a mile and a half off, or perhaps much further under certain conditions. In the day-time, however, such a buoy may generally be passed without an observer being able to detect the light.

The cost of this branch of the public service is something like £70,000 per annum; a single lightship of improved construction costing, when complete, £8,000 or more.—*Chamber's Journal.*

A SUBMARINE CRAFT.

Prof. Charles F. Ritchell of Bridgeport, famous in Connecticut as the inventor of numerous practical labor saving machines, and famous in Europe and America as the inventor and builder of the only flying machine ever devised that succeeding in flying, has perfected a model of a submarine craft with which he expects to overcome the obstacles that so long kept the civilized mariner ignorant of the surroundings of the north pole. He feels confident that with this vessel he can navigate the sea with far less danger below the surface than above, and make much greater speed. He considers that his vessel will be indispensable to the navy, and for all expeditions in the Arctic or Antarctic oceans. The first machine will be of an elongated eggshape, will be built in compartments, and will be at least 200 feet long. It will have four huge glass eyes, which the lookout can see above, ahead, behind, and below. The propelling power will be a screw at the stern, and the lowering and lifting power a screw beneath the keel on exactly the same principle as that of the fan wheel used on the air ship, whereby the vessel is made to rise or fall at the operator's desire. The vessel is made to float, but the vertical screw will draw it downward at whatever rate of speed it is running. The professor's plan about reaching the north pole is to come to the surface at every opportunity in the ice openings, and after securing fresh air to fill the compressed air compartment, descend again and continue the voyage. Twenty men could successfully operate the machine contemplated. The principal of buoyancy is the same as that of the air ship, the equipoise being such that a slight force will govern its upward or downward movements. Should the vessel strike the earth or ice it would bound back in the same way and for the same reason that a foot-ball bounds on the earth. It is proposed to use oil for fuel and electricity for light. The vessel will be of copper. Prof. Ritchel has built a working model of his submarine craft. This miniature is now in operation in a large tank of water at his laboratory in the Bridgeport savings bank building. The model is worked by means of a spring, but in every other particular it is rigged as will be the larger vessel. It will be readily seen how radical an improvement is Prof. Ritchell's plan over the exploded theories of former inventors of submarine vessels.—*N. Y. Times.*

NEW FOG SIGNAL FOR STEAMERS.

The board of supervising inspectors of steam vessels recently incorporated in their rules one providing that tugs with a tow astern must blow a whistle three times each minute during a fog. The rule was referred to the solicitor of the treasury for an opinion as to whether this would conflict with the revised statutes which provides that the whistle "must be sounded." The solicitor decides that the board has the right to make a rule dividing sounds into three blasts, and the rule will stand.

File your MARINE RECORDS for reference

DISEASE CURED

Without Medicine.

A Valuable Discovery for supplying Magnetism to the Human System. Electricity and Magnetism utilized as never before for Healing the Sick.

THE MAGNETON APPIANCE CO.'S

Magnetic Kidney Belt

FOR MEN IS

WARRANTED TO CURE OR MONEY REFUNDED, the following diseases without medicine:—PAIN IN THE BACK, HIPS, HEAD OR LIMBS, NERVOUS DEBILITY, LUMBAGO, GENERAL DEBILITY, RHEUMATISM, PARALYSIS, NEURALGIA, SCIATICA, DISEASES OF THE KIDNEYS, SPINAL DISEASES, TORPID LIVER, **Gout, Seminal Emissions, Impotency, Asthma, Heart Disease, Dyspepsia, Constipation; Erysipelas, Indigestion, Hernia or Rupture, Catarrh, Piles, Epilepsy, Dumb Ague, etc.**

When any debility of the **GENERATIVE ORGANS** occurs. **Lost Vitality, Lack of Nerve Force and Vigor, Wasting Weakness,** and all those **Diseases** of a personal nature, from whatever cause, the continuous stream of Magnetism permeating through the parts, must restore them to a healthy action. There is no mistake about this appliance.

TO THE LADIES.—If you are afflicted with Lame Back, Weakness of the Spine, Falling of the Womb, Leucorrhœa, Chronic Inflammation and Ulceration of the Womb, Incidental Hemorrhage or Flooding, Painful, Suppressed and Irregular Menstruation, Barrenness, and Change of Life, this is the Best Appliance and Curative Agent known.

For all forms of **Female Difficulties** it is unsurpassed by anything before invented, both as a curative agent and as a source of power and vitalization.

Price of either Belt with Magnetic Insoles, $10, sent by express C. O. D., and examination allowed, or by mail on receipt of price. In ordering send measure of waist, and size of shoe. Remittance can be made in currency, sent in letter at our risk.

The Magneton Garments are adapted to all ages, are worn over the under clothing, **not next to the body like the many Galvanic and Electric Humbugs advertised so extensively,** and should be taken off at night. They hold their POWER FOREVER, and are worn at all seasons of the year.

Send stamp for the "New Departure in Medical treatment **Without Medicine,**" with thousands of testimonials.

THE MAGNETON APPLIANCE CO.,
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NOTE.—Send one dollar in postage stamps or currency, in letter at our risk, with size of shoe usually worn, and try our Magnetic Insoles, and be convinced of the power residing in our other Magnetic Appliances. Positively no cold feet when they are worn, or money refunded.

A PRIZE. Send six cents for postage, and receive free, a costly box of goods which will help you to more money right away than anything else in this world. All, of either sex, succeed from first hour. The broad road to fortune opens before the workers, absolutely sure. At once address, TRUE & Co., Augusta, Maine.

TRAVELERS' REGISTER.

LAKE SHORE & MICHIGAN SOUTHERN.

Commencing Sunday, November 18, at 12 o'clock noon the time given in the figures below is the new standard (Ninetieth meridian) time, which is thirty-three minutes slower than Cleveland time proper and twenty-eight minutes slower than the time heretofore in use (Columbus time) by these roads.

Eastward.	Arrive.	Depart.
Fast New York Express	*1 07 A M	*1 22 A M
N Y, B & A Express	*6 37 A M	*7 02 A M
Elyria Accommodation	†8 07 A M	.....
Port Clinton Accommodation	†10 37 A M	.....
Buffalo Accommodation	†10 37 A M	†10 52 A M
N Y & B Fast Express	*1 57 P M	*2 27 P M
Cin. & St. Louis Express	.....	*3 37 P M
Conneaut Accommodation	.....	4 22 A M
Nottingham [Sunday only]	9 44 P M	.....
Night Express	†9 42 P M	†10 07 P M

Westward.	Arrive.	Depart.
Fast Limited Express	*11 55 A M	*12 05 A M
Mich Express via Sandusky	*2 22 A M	*2 37 A M
Chicago Express via "	§6 07 A M	6 32 A M
Mich Accom, Norwalk	.....	†6 12 A M
Conneaut Accommodation	†8 12 A M	.....
Nottingham, [Sunday only]	4 17 P M	1 47 P M
Toledo Express via Norwalk	*12 52 P M	†3 02 P M
St Louis Ex via Sandusky	*1 02 P M	*1 25 P M
C P Ex via Norwalk	†6 02 P M	*6 32 P M
Port Clinton Accommodation	.....	† 4 32 P M

Reference marks—* Daily, † daily, except Sunday, § daily, except Monday.

BEE LINE

Cleveland, Columbus, Cincinnati and Indianapolis Railway.

Equipment New and Comprising all Modern Improvements.

☞Tickets by this popular route for sale at all regular Teket Offices.

E. B. THOMAS, General Manager. **O. B. SKINNER,** Traffic Manager.

A. J. SMITH, General Passenger Agent.

CLEVELAND, OHIO.

CLEVELAND, COLUMBUS, CINCINNATI & INDIANAPOLIS.

Commencing Sunday, November 18th, trains of the Bee Line—Cleveland, Columbus, Cincinnati & Indianapolis Railway—will leave and arrive at Cleveland as follows, CENTRAL STANDARD TIME, 33 minutes slower than Cleveland time:

	Depart
No. 1, Cincinnati & Columbus Express	*7:30 A M
No. 11, Indianapolis & Wheeling Express	6:40 A M
No. 17, Special Columbus & Cincinnati Ex.	1:20 P M
No. 3, Special Ind & St. Louis Express	*1:40 P M
No. 5, Col. Cin., Ind. & St. Louis Express	*6:40 P M
No. 7, Gallion & C.L & W. Acc	4:30 P M
	Arrive.
No. 2, Col. & Cin. & Ind. Express	*6:40 A M
No. 8, Gallion & C. L. & W. Acc	9:10 A M
No 12, St. Louis & Indianapolis Express	*2:50 P M
No. 6, Col. Cin. & Indianapolis Express	9:55 P M
No. 4, Columbus & Cincinnati Express	*3:20 P M
No. 10, Wheeling Express	6:45 P M
No. 14, Col., Cin. & N. Y. Fast Line	1:10 A M

Trains marked * daily, all other trains daily except Sunday.

New York, Pennsylvania & Ohio R. R.

NEW YORK, BOSTON AND THE EAST.

The Shortest and Quickest Route to Pittsburg, Washington and Baltimore and the Southeast.

Central or Ninetieth Meridien time. 33 minutes slower than Cleveland city time.

Until further notice trains will leave from the new Central Depot, South Water street and Viaduct as follows:

6.50 a. m. ATLANTIC EXPRESS—(Daily) Pullman sleeping and hotel coaches from Leavittsburgh 8:35 a. m. to New York, Albany and Boston without change. Arrive at Meadville at 10:40 a. m. (dinner) Franklin at 12:08 p. m, Oil City 12:30 p. m, Corry 12.35 p. m, Jamestown (Lake Chautauqua) 1.35 p. m, Buffalo 5:50 p. m. Rochester 8:20 p. m.; Hornellsville 6:00 p m. [supper]; Corning 7:25 p. m. Elmira 8:05 p m. Binghanton 10:05 p. m., Albany 5:00 a. m. Boston 1:45 p. m.; arriving at New York 6:15 a.m.

2.20 p. m. LIMITED EXPRESS—Through Pullman sleeping coach from Cleveland to New York. Arrives at Meadville at 6:30 p. m, Jamestown 8:47 p. m., Salamanca 9:45 p. m., New York 10:10 a. m.

11:00 p. m. NIGHT EXPRESS—(Daily except Sunday) Seeping coach from Cleveland Hornellsville. Arrive at Youngstown at 1:50 a. m., Meadville 3:25 a. m., Corry 4:59 a. m. Jamestown 5,57 a. m, Buffalo 9:20 a. m., Rochester 12:58 p, m., Hornellsville, 11:00 a m, Corning 12:07 p m, Elmira 12:40 p. m., Binghampton 2:19 p m., New York 9:10 p. m. Arrive at Pittsburgh 5:50 a m., without change.

2.20 p. m. PITTSBURGH EXPRESS — Daily — Through without change, Parlor car attached. Arrives at Youngstown 5:00 p m., Pittsburg 8:02 p. m., Washington 7.09 a. m, Baltimore 8:19 a. m.

4:11 p. m. MAHONING ACOMMODATION — Stopping at all way stations, arriving at Youngstown 6:55 p. m., Sharon 8:01 p. m., Sharpesville 8:10 p. m.

6:50 a. m. PITTSBURGH EXPRESS — Daily — Through without change. Arrives at Youngstown 9.30 a. m., Sharon 10:30 a. m., Sharpesville 10:40 a. m., Pittsburgh 12 45 p m., Returning, leaves Pittsburgh at 4:15 a. m., 7:45 a. m., 12:55 p. m., and 3:45 p m.

10 35 a m. YOUNGSTOWN AND PITTSBURGH ACOMMODATION—Stopping at all Way stations, arriving at Youngstown 1:40 p. m., Pittsburgh, 5.45 p. m.

Trains arrive at Cleveland, 6:15 a. m., 6:30 p. m., 10.20 a. m; 1:05 p. m., and 9:45 p. m,

☞This is the only route by which passengers can reach Corry Elmira, Binghampton, New York City and intermediate points without change. No change to Boston and New England Cities.

Baggage checked through to all points East.

Through tickets and information regarding the route can be obtained at the office 131 Bank street, and at new Depot of N. Y., P & O. R R., South Water street and Viaduct, Cleveland, O.

A. E. CLARK, Gen'l Pass'r Ag't Cleveland, O.
J. M FERRIS, Gen'l Man'gr, Cleveland, O.
M. L, FOUTS, Passenger Agt, 131 Bank St. Cleveland.

The Nickel Plate!

NEW YORK, CHICAGO & ST. LOUIS RAILWAY.

The passenger equipment of this New Trunk Line is all new and is supplied with the latest appliances necessary to safe speedy and comfortable travel.

At Chicago, passenger trains arrive at and leave from the Union Depot, Van Buren street.

Following is the time in effect Nov. 18, 1883, and until further notice:

GOING EAST.

Lv. Chicago	7.47 a. m.	.....	.....
Arr. Valparaiso	9.37 "	.....	.....
" Fort Wayne.	1.00 p. m.	.....	.....
" New Haven..	1.35 "	.....	.....
" West Leipsic.	3.45 "	.....	.....
" Arcadia	4.44 "	.....	.....
" Fostoria	4.57 "	.....	.....
" Green Springs	5.44 "	.....	.....
" Bellevue	6.12 "	.....	.....
Lv. Bellevue	6.22 "	7.52 a. m.	.....
Arr Cleveland	9.02 "	10.22 "	Accom.
Lv. Cleveland	.....	10.27 "	3 52 p. m
Arr Painesville	.....	11.33 "	5·05 "
" Ashtabula	.....	12 25 p. m.	6.03
" Conneaut	.....	1.07 "	6.32 "
" Erie	.....	2.09 "	.....
" Dunkirk	.....	3.47 "	.....
" Buffalo	.....	5.22 "	.....

GOING WEST.

Lv Buffalo	9.47 a. m.	.....	.....
Arr Dunkirk	11.24 "	.....	.....
" Erie	1.23 p. m.	.....	Leave
" Conneaut	2.17 "	.....	6.17a. m.
" Ashtabula	2.50 "	.....	6.46 "
" Painesville	3.44 "	.....	7 43 "
" Cleveland	4.52 "	.....	8.57 "
Lv Cleveland	4.57 "	6.47 a. m.	.....
Arr Bellevue	7.37 "	9.17 "	.....
Lv Bellevue	.....	9.22 "	.....
" Green Springs.	.....	9.44 "	.....
" Fostoria	.....	10.22 "	.....
" Arcadia	.....	10.34 "	.....
" West Leipsic	.....	11.30 "	.....
" New Haven	.....	1 35 p. m.	.....
" Fort Wayne	.....	1.52 "	.....
" Valpraiso	.....	5.55 "	.....
" Chicago	.....	7.52 "	.....

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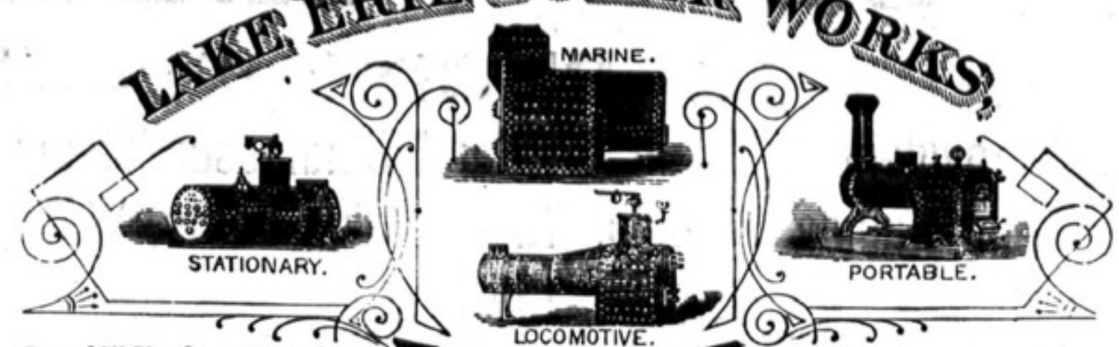

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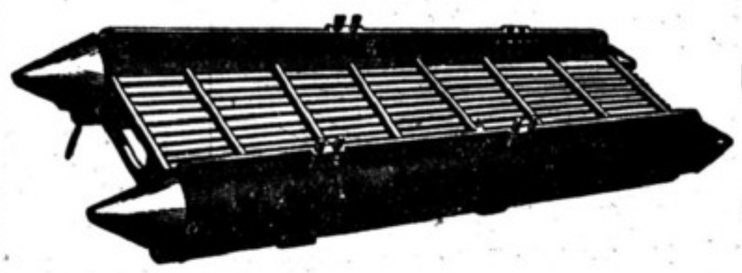

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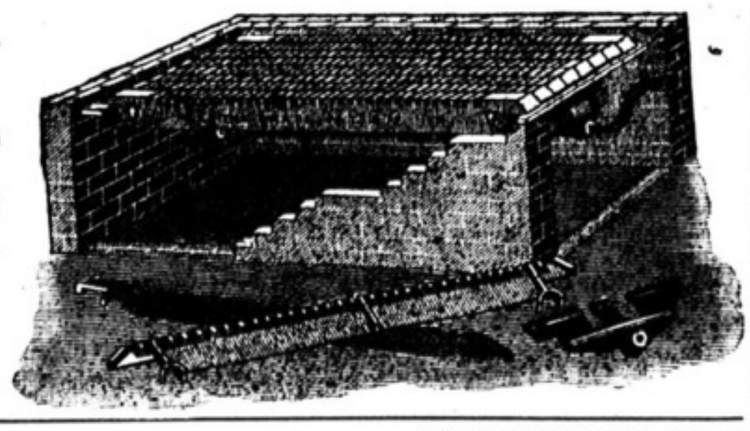

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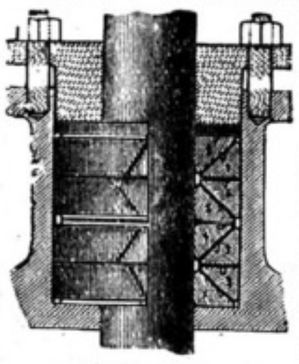

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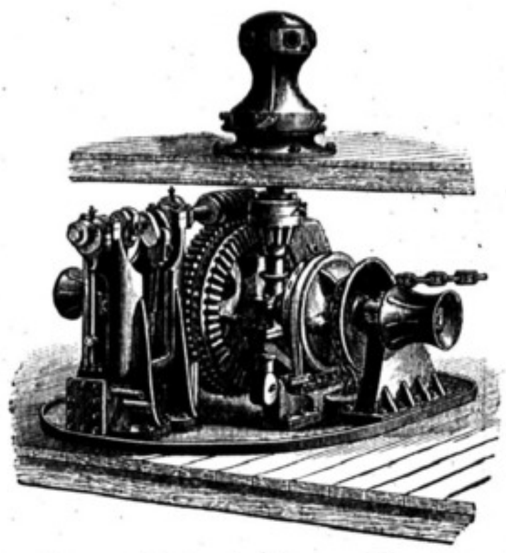

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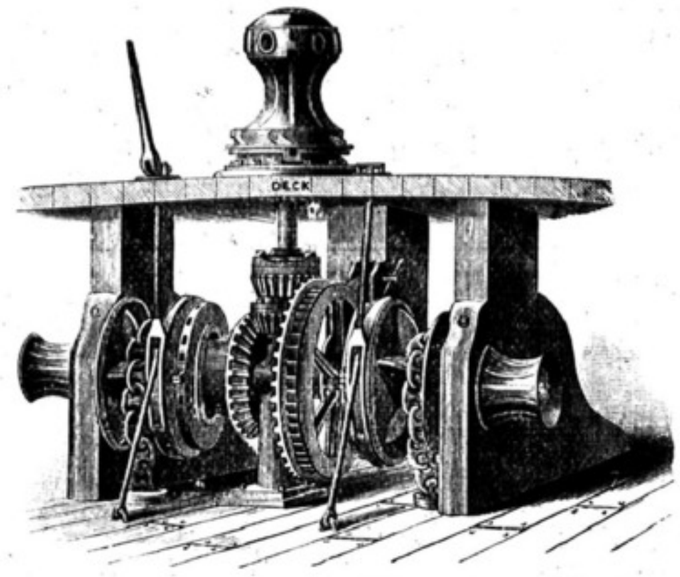

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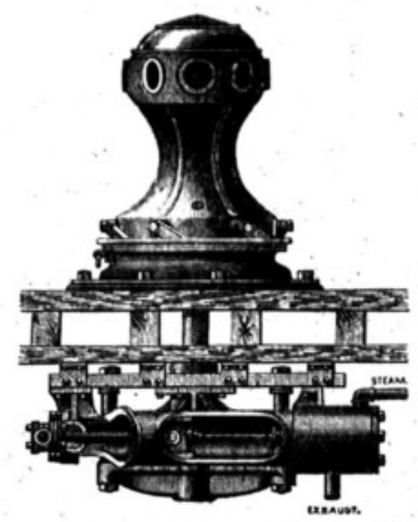

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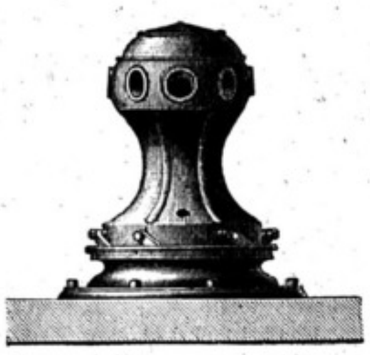

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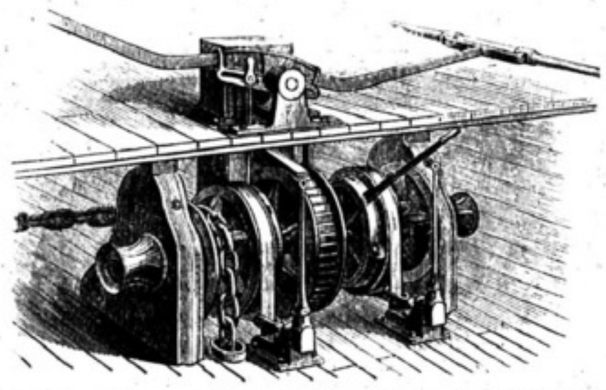

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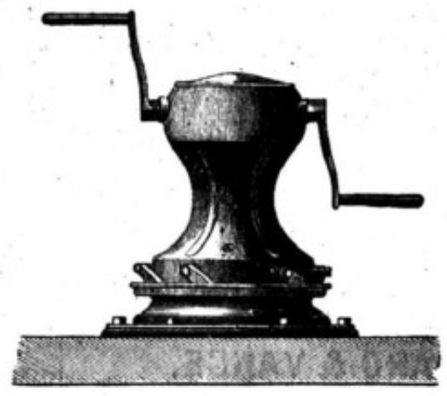

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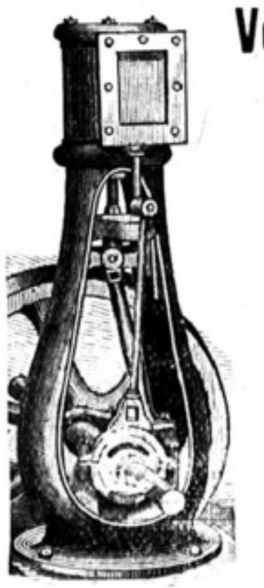

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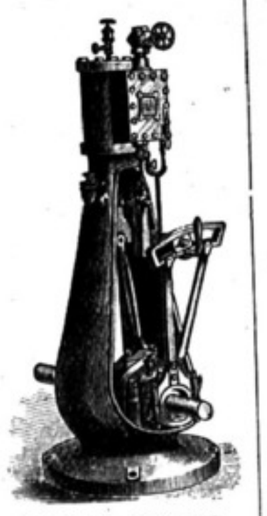

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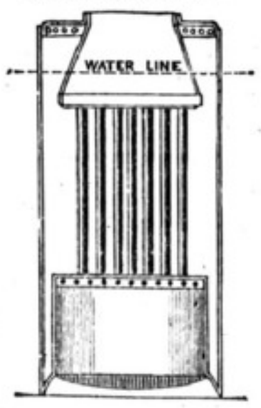

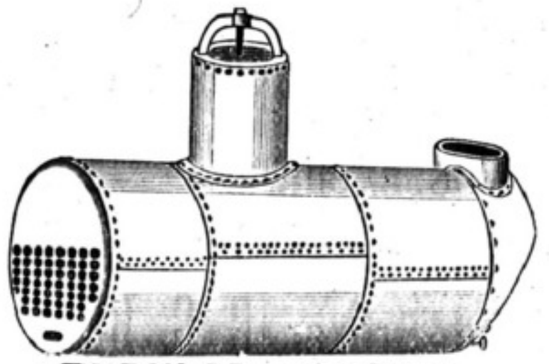

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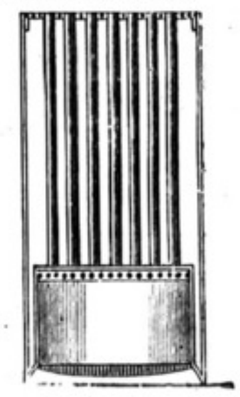

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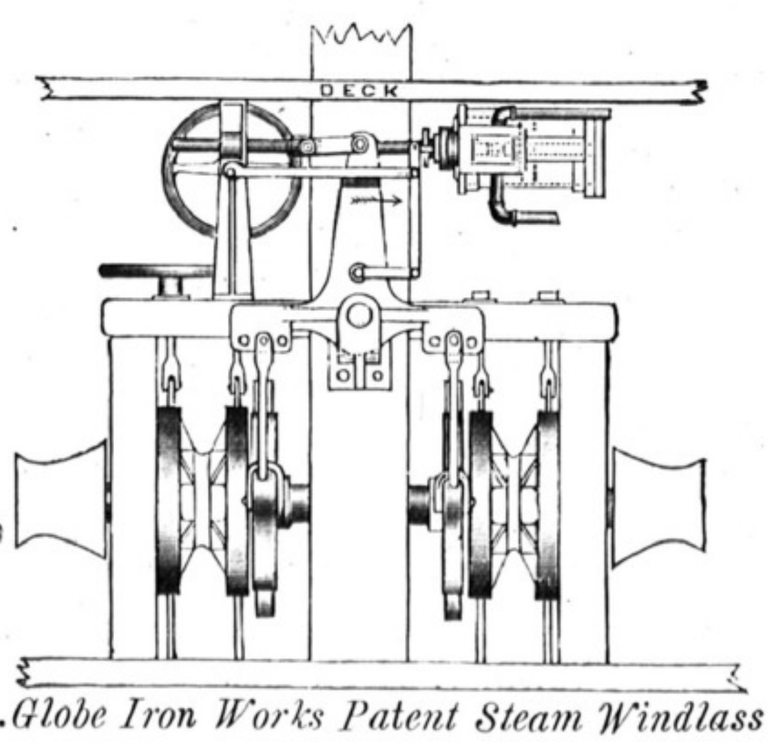

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